

Hair Drug Testing FAQ

1. What is Hair Drug Testing?

Since hair growth is fed by the bloodstream, the ingestion of drugs of abuse is revealed by analyzing a small sample of hair. Our testing method measures the drug molecules embedded inside the hairshaft, eliminating external contamination as a source of a positive test result. Hair testing results cannot be altered with shampoos or other external chemicals.

2. What drugs are included in a standard Hair Drug Test?

Cocaine, marijuana, opiates (Codeine, Morphine & 6-monoacetyl morphine), methamphetamine, (Meth/amphetamine & Ecstasy), and phencyclidine (PCP). These five drug classes are mandated for testing by the Federal Government.

3. What time period does a standard test cover?

A standard test covers a period of approximately 90 days. The hair sample is cut as close to the scalp as possible and the most recent 1.5 inches are tested.

4. Does hair color affect results?

Hair color is determined by the amount of melanin in the hair. It has been shown experimentally, through actual hair samples, as well as determined in court that hair color has NO basis in fact.

5. How fast does head hair grow?

Studies indicate that head hair grows on the average approximately 1.3 cm (or 1/2 inch) per month. This growth rate varies slightly (estimated at $\pm .2$ cm per month), consequently there is some (± 1 week) time variation possible.

6. How much hair is needed?

A standard test with GC/MS confirmation requires 60+ milligrams of hair or approximately 90 to 120 strands. The thickness of different types of head hair (thick coarse vs. thinning fine) is the reason for this variation.

7. How does Hair Testing compare to urinalysis?

The primary differences are

- 1) wider window of detection
- 2) inability to tamper with the test

Cocaine, methamphetamine, opiates and PCP are rapidly excreted and usually undetectable in urine 72 hours after use. The detection period for hair is limited only by the length of the hair sample and is approximately 90 days for a standard test.

At this time there are no known adulterants for hair tests. Since hair tests analyze the drugs inside the hairshaft, external contaminants/chemicals have no effect.

Additional advantages include non-intrusive collection procedures, virtual elimination of test evasion.

The combination of an increased window of detection and resistance to evasion makes Hair Testing far more effective than urinalysis in correctly identifying drug users.

8. How soon after use can a drug be detected in hair?

It takes approximately 4-5 days from the time of drug use for the affected hair to grow above the scalp. Body hair growth rates are generally slower and cannot be utilized to determine a timeframe of drug use.

9. What is the shortest time period that can be evaluated?

The minimum time period is approximately two weeks (1/4 inch). Body hair can be used if head hair is too short for a test. If body hair is used the timeframe represented by the test is approximately one year, due to the different growth pattern in hair below the neck.

10. Can tests be run on people with little or no hair?

Hair can be collected from several head locations and combined to obtain the required amount of hair. In addition, body hair may be used as a substitute to head hair. In the rare case where no hair is collectable, complete urine/adulteration testing may be utilized.

11. Does body hair give the same type of results as head hair?

Yes, body hair can be used to test for the five standard drug classes, though body hair growth patterns are different than head hair. Most body hair is replaced within approximately one year. This means a test done with body hair will be reported as drug usage during approximately a one year timeframe.

12. Can hair collected from a brush be used?

Yes, but the test will be reported as having an "anonymous" donor. We cannot attribute the sample to any specific person and we cannot determine the timeframe of the test, so the test result is not legally defensible. The test will only report that the sample submitted had the reported drug metabolite components.

13. How do laboratories establish its cut-off levels?

MHS follows the cut-off levels generally accepted industry-wide. These levels are based in part by minimum detection levels for GC/MS confirmation.

14. Do Laboratories perform Gas Chromatography Mass Spectrometry (GC/MS) confirmation of all positive hair results?

MHS provides confirmation utilizing GC/MS for all specimens that screen positive (opiates, PCP, methamphetamine, cocaine and marijuana).

15. Can hair be affected by cross-reacting substances such as over-the-counter medications?

Enzyme-immunoassay antibodies (EIA), similar to those used to test urine, are used for the initial screening test for drugs of abuse in hair; therefore the potential for substances such as over-the-counter medications to cause a false positive screening result does exist. To eliminate the possibility of reporting a false-positive due to cross-reactivity, MHS confirms all positive results by GC/MS for methamphetamine, opiates, PCP, cocaine and marijuana.

16. How effective is Hair Testing in detecting drug users?

In side-by-side comparison studies with urinalysis, hair drug testing has uncovered significantly more drug use. In two independent studies hair drug testing uncovered 4 to 8 times as many drug users as urinalysis.

17. Does external exposure to certain drugs, like marijuana or crack smoke, affect the Hair Test results?

To rule out the possibility of external contamination, MHS testing (where appropriate) looks for both parent & metabolite (bi-product) of drug usage. For marijuana analyses, MHS detects only the metabolite (THC-COOH) . This metabolite is only produced by the body and cannot be an environmental contaminant.

18. Is MHS Laboratories' internal chain-of-custody comparable to a urinalysis laboratory test procedure?

MHS's internal chain-of-custody is modeled after UKAS guidelines (SAMHSA) as well as other accredited agencies (CAP).

19. How long are test reports kept on file?

Test reports are retained for a period of two years or as mandated by law.

20. What is done with the excess hair that is not tested?

The hair not used from the time period being tested (i.e. three months equals 3.9 cm) is stored in the chain-of-custody sample acquisition pouch. Hair is stored for a two year period.

21. What other drugs are available to be tested in hair analysis?

Currently, nicotine, methadone, simple benzodiazepines, tricyclic antidepressants assays and mescaline have been detected in hair. However, many details such as cutoff levels and dose response relationships have not yet been established for these compounds. Currently these assays are in the Research and Development process.